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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,503	02/19/2004	Shinichi Kurita	007956	4718
			Display/AHRDWRE	
			EXAMINER	
			NGUYEN, JIMMY	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/782,503	Applicant(s) KURITA ET AL.	
	Examiner Jimmy Nguyen	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0206</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Argument

The applicant's argument has been carefully considered with the following effect;

The arguments are in mood of new ground of rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 24 are rejected under 35 U.S.C. 102(b) as being anticipated by
Kodama Masayoshi (UP 09-152569)

As to claims 1, 20, Kodama Masayoshi disclosed (fig 4) a sensing system and a method adapted to determine a position of an edge of a substrate relative to a stage that supports the substrate, comprising:

a plurality of probes (3a, 3b, 3c) arranged in a spaced relation around a stage (1, fig 5) that is adapted to support a substrate (2), wherein each probe includes a detection portion that is adapted to:

move from a known starting position (by the direction A, B, C) toward an edge of the substrate (2) that is supported by the stage;

detect the edge of the substrate (2) while the substrate is supported by the stage
(1);

generate a detection signal (by the edge sensors 3a, 3b, 3c) following said detection; and stop moving toward the edge of the substrate (2) following said detection; and

a controller (8, 9) coupled to the plurality of probes (3a, 3b, 3c) and adapted to determine a position of the edge of the substrate (2) relative to the stage (1) based on the known starting position of each detection portion and based on the detection signal generated by each detection portion.

As to claims 2, 18, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 1, wherein each detection portion (3) comprises a switch adapted to contact the edge of the substrate (2) and generate a detection signal (by the circuit 6) upon said contact.

As to claim 3, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 1, wherein each of the detection portions (3a, 3b, 3c) is adapted to move toward the edge of the substrate (2) along a straight-line path.

As to claim 4, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 3, wherein the plurality of probes (3a, 3b, 3c) resides in a common plane (dot lines) containing the straight-line paths of the detection portions.

As to claims 5, 22, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 4, wherein the plurality of probes (3a, 3b, 3c) includes a first and a second probe positioned along a first line within the common plane when the first and second probes are retracted.

As to claims 6, 9, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 5, wherein the plurality of probes (3a, 3b, 3c, 3d) includes a third (3c) and a fourth probe (3d) positioned at an opposite side of the stage (1) from the first and second probes along a second line within the common plane when the third and fourth probes are retracted.

As to claim 7, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 6, wherein the plurality of probes includes a fifth probe positioned along a third line within the common plane and approximately perpendicular to the first and second lines when the fifth probe is retracted.

As to claim 8, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 7, wherein the plurality of probes includes a sixth probe positioned at an opposite side of the stage from the fifth probe along a fourth line within the common plane and approximately perpendicular to the first and second lines when the sixth probe is retracted.

As to claims 10 - 13, 16, 17, 21, Kodama Masayoshi disclosed (fig 4) a plurality of drive mechanisms (5a, 5b, 5c, 5d), each drive mechanism coupled to a respective one of the probes (3a, 3b, 3c, 3d) and adapted to move the respective one of the probes toward and away from the edge of the substrate (2).

As to claim 11, Kodama Masayoshi disclosed (fig 4) teaches drive mechanism (5a, 5b, 5c, 5d) comprise motor.

As to claim 14, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 12 wherein the controller is further adapted to determine a distance the detection portion of each probe (3a, 3b, 3c) traveled from the known starting position of the detection portion to a position at which the detection portion detected the edge of the substrate; and determine the position of the edge of the substrate relative to the stage based on the distance traveled by the detection portion of each probe.

As to claims 15, 24, Kodama Masayoshi disclosed (fig 4) the sensing system of claim 14 wherein the controller (8, 9) is further adapted to determine straightness of the substrate relative to the stage based on a plurality of the determined distances.

As to claims 19, 23, Kodama Masayoshi disclosed (fig 4) the probe of claim 16 wherein: the detection portion (3a, 3b, 3c) is further adapted to retract from the stage (1) so as to allow the substrate (2) to be loaded onto and removed from the stage; and the controller (8, 9) is further adapted to direct the drive mechanism (5a, 5b, 5c) to retract the detection portion to the known starting position of the detection portion.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen whose telephone number is 571-272-1965. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramtez Nestor, can be reached on 571- 272- 2034. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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Jimmy Nguyen

4/13/06


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PRIMARY EXAMINER
A.U. 2829
04/14/06